

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant:	Daniel J. Zillig et al.	Examiner:	Matthew D. Matzek
Serial No.:	10/622,973	Group Art Unit:	1771
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Title:	CLEANING WIPE AND METHOD OF MANUFACTURE		

REPLY BRIEF TO EXAMINER'S ANSWER
TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

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Reply Brief Under 37 C.F.R. §41.41

This Reply Brief is responsive to the Examiner's Answer mailed September 19, 2007, and supports the Notice of Appeal filed on April 30, 2007 appealing from the final rejection dated November 28, 2006 of claims 1-10, 12-36, 47, 49, 51, and 52 of the above-identified application. Thirty-nine claims remain for consideration.

The U.S. Patent and Trademark Office is hereby authorized to charge required fees to Deposit Account No. 50-0471 at any time during the pendency of this application. Please charge fees required or credits due to Deposit Account 50-0471 pursuant to 37 C.F.R. §1.25. Additionally, this notice is authorization to charge Deposit Account 50-0471 for any fees due under 37 C.F.R. §§1.16, 1.17, 1.19, 1.20 and 1.21.

ARGUMENT

All arguments presented in Appellant's Brief are incorporated by reference herein. Further, Appellant responds to the Examiner's Answer as follows.

I. A GROSS INTERNAL VOLUME OF ADHESIVE MATERIAL DOES NOT TEACH THE CLAIMED "LEVEL" OF TACKY MATERIAL AS SET FORTH IN THE CLAIMS

With respect to the rejections of claims 1-10, 17-24, 47, and 49 as being anticipated by Willman (or in the alternative as being made obvious by Reiterer in view of Willman), the Examiner's Answer presents, for the first time during prosecution of the pending application, the following interpretation of Willman:

Since the material [Willman's PSA material] is impregnated and the volume of the interior of a sheet is greater than the exterior surface, it is only logical that the level of tacky material is necessarily greater in the intermediate region than the level at the surface.

The Examiner's Answer further opines, for the first time during prosecution of the pending claims, that:

In addition to the interpretation of Willman's disclosure offered *supra*, the Examiner contends that the cleaning sheet of Willman behaves in much the same manner as a sponge when water is introduced. The absorbent article (fiber web) soaks up the available fluid (in Willman's case, adhesive), and the body of the article provides greater volume due to its thickness in which to absorb the fluid than its surfaces; a sponge retains much more water in its body than is present at its working surfaces. This is consistent with Appellant's measure of coating levels as set forth in paragraph 25 of the application's PG Pub, which states that the coating "level" can be in reference to a mass, volume, surface area, quantity and/or thickness.

As described below, this interpretation of Willman does not teach or reasonably make obvious the "tacky material level" features of at least claims 1 and 3-10.

A. The Tacky Material Coating “Level” of Claim 1 is Distinct from Total Gross Volume of Adhesive of Willman

As set forth in Appellant's Appeal Brief, Willman makes clear that the polymeric/tacky material additive is applied to the fiber sheet only after the sheet is completely formed. As a result, Willman is limited to application of the polymeric/tacky material additive to an exterior of the completed fiber cleaning sheet (or fiber web), followed by penetration of the adhesive into the interior thereof. Thus, because the polymeric/tacky material is continuously applied to the outer surfaces of the Willman web, the resultant tacky material coating will always be at a maximum at the outer surfaces. This is the established starting point for any analysis of what Willman teaches, and the Examiner's Answer does not dispute this explanation.

Instead, the Examiner's Answer appears to ignore the coating context of claim 1, and incorrectly asserts a gross, total “internal” volume of the Willman polymeric/tacky material in rejecting claim 1. The Examiner's Answer postulates that because the Willman cleaning sheet has a thickness, a gross, total volume of the polymeric tacky material of the entire “interior” of the fiber web (i.e., apart from the opposing surfaces) is greater than a volume of the polymeric tacky material at the outer surfaces themselves. While not agreeing or disagreeing with this speculative statement, it is respectfully submitted that this interpretation fails to properly consider the tacky material “level” as claimed in claim 1.

Claim 1 recites that the tacky material is impregnated into the fiber web, and that a “level of the tacky material” is greater in the intermediate region than at the working surface. As agreed at page 9 of the Examiner's Answer, the pending specification provides the definition of the claim term “level” in the context of the claimed “tacky material”. More particularly, at page 7, lines 13-16, the specification defines the term “level” as being in reference to one or more parameters commonly used in defining a coating material. According to the specification, the coated mass, volume, surface area, quantity, and/or thickness is the coating “level”. Thus, regardless of the gross, total “internal” volume of adhesive within the Willman web, claim 1 is directed to a different parameter. Namely, claim 1 recites that the coating level of the tacky

material is greater in the intermediate region than at the working surface, either microscopically (e.g., on a fiber basis) or macroscopically (e.g., relative to "slices" taken through the web). With this understanding in mind, then, Willman requires that the outer surfaces have an elevated tacky material coating level at the outer surface(s) as compared to any other internal region. This is necessarily true because Willman coats the adhesive/tacky material to the outer surfaces and then allows the adhesive/tacky material to saturate therethrough in partially coating internal fibers. Thus, the coating level of the Willman adhesive/tacky material is always maximized at the outer working surfaces, and progressively decreases through a thickness thereof. With this correct understanding in mind, it is respectfully submitted that Willman does not teach the feature of claim 1 such that claim 1 is allowable over Willman alone, or over Reiterer in view of Willman.

B. The Features of at Least Claims 3-10 Further Define Over the Examiner's Newly-Presented Interpretation of Willman

1. Claim 3

Claim 3 recites that "an amount of tacky material per area of fiber web material is greater in the intermediate region than at the working surface." Even if the gross, total "interior" volume of adhesive/tacky material of Willman is greater than the volume at the working or outer surface as asserted in the Examiner's Answer, this interpretation is unrelated to the "per area of fiber web" language of claim 3 and clearly does not meet the features of claim 3. By necessity, the exteriorly-applied adhesive/tacky material of Willman means that for any area of the Willman fiber web, the amount of adhesive tacky material is always maximized at the outer, working surfaces. On a per area of fiber web material basis, the adhesive/tacky material of Willman can never be greater in the interior of the web. The Examiner's Answer fails to address this feature of claim 3. Thus, it is respectfully submitted that claim 3 recites additionally allowable subject matter.

2. Claim 4

Claim 4 recites that relative to a central plane mid-way between, and parallel to, planes defined by opposing faces of the fiber web, a ratio of tacky material:web material is greater at the central plane than at the working surface. The gross, total “interior” volume of Willman as asserted in the Examiner’s Answer fails to address these features. In fact, Willman does not teach or reasonably make obvious the features of claim 4. To the contrary, the features of claim 4 are not possible with the construction of Willman. Instead, by exteriorly applying the adhesive/tacky material and then allowing the tacky material to progress or saturate through a thickness of the Willman web, the ratio of tacky material:web material must always be at a maximum at the working surface relative to any interior plane defined through a thickness of the fiber web, including the central plane defined in claim 4. Thus, claim 4 recites additionally allowable subject matter.

3. Claim 5

Claim 5 recites that a fiber of the fiber web includes a first section that is proximate a central region of the web and a second section that is proximate the working surface. With these conventions in mind, claim 5 further recites that a coating thickness of the tacky material at the first section of the fiber (closer to the central region) is greater than a coating thickness of the tacky material at the second section of the fiber (closer to the working surface). The Examiner’s gross, total “interior” volume interpretation of Willman fails to account for these claimed features. In particular, while the fiber web of Willman may include a fiber having a first section that is closer to the working surface and a second section that is closer to a mid-way region of the web, it is impossible for the tacky material coating thickness along this fiber to be greater at the fiber section closer to the mid-way region as compared to a coating thickness of the fiber section closer to the working surface. Instead, by applying the adhesive/tacky material to the web’s exterior surfaces, the coating thickness relative to any of the woven fibers must be at a maximum at the fiber section closest to the exterior surface. Thus, claim 5 recites additionally allowable subject matter over Willman.

4. Claim 6

Claim 6 is akin to claim 5 in that fibers of the fiber web are defined as each having a first section closer to the central region of the web and a second section closer to the working face. Further, claim 6 recites that a coated volume of the tacky material at the first section of each fiber (i.e., the section closer to the central region) is greater than a coated volume of the tacky material at the second section (i.e., closer to the working face). As described above, it is impossible for the structure of Willman to teach these features. Instead, the maximum tacky material coated volume for all fibers of Willman will exist along the fiber section that is closer to the exterior surface/working face. This is in direct opposition to claim 6. Thus, claim 6 recites additionally allowable subject matter.

5. Claims 7-10

Claims 7-10 recite that the fiber web has a web thickness, with the applied tacky material defining a tacky material gradient across the web thickness. In rejecting claims 7-10, the Examiner's Answer fails to identify any tacky material gradient provided by the adhesive/tacky material of Willman commensurate with claim 7, or the tacky material gradient characteristics of claims 8-10 (e.g., that the level or quantity of the tacky material is reduced at the center of this cross-thickness gradient). In fact, the only "gradient" that might be defined by the Willman structure results from the exteriorly applied adhesive manufacturing technique. With this approach, either the gradient is uniform across the entire web thickness (i.e., where the web is completely saturated with the adhesive) or is reduced at the center of the web as compared to the outer surfaces (i.e., where the volume of applied adhesive does not fully saturate the fiber web). Thus, claims 7-10 define additionally allowable subject matter.

II. THE ANALOGY OF WILLMAN TO A SPONGE DOES NOT TEACH CLAIMED FEATURES

As described above, the Examiner's Answer argues that the fiber web of Willman "absorbs" the applied adhesive in the same manner as a sponge when water is introduced. It is respectfully submitted that this analogy is inapplicable to claim 1 and the claims depending therefrom. In particular, with a sponge, as the working surface is exposed to water, the water is progressively, temporarily retained within open pores of the sponge. In other words, as the pores of the outer surfaces of the sponge are saturated with water, additional volumes of water are progressively retained by interior pores. However, the pores of the outer surface remain saturated with the water, and the water is subsequently released from the pores with drying. Nothing is "coated" and no "coating level" exists. Thus, reference to possible occurrences of temporarily retained fluid in a sponge is unrelated to the coating level of tacky material set forth in claim 1. It does not matter whether the Willman web functions like a sponge; the only features relevant to claim 1 (and all claims depending therefrom) is the coating level of tacky material. In this regard, the coating level of the Willman adhesive/tacky material is always maximized at the outer working surfaces, such that the limitations of claim 1 are not taught.

Further, the analogy to a sponge supports the position set forth above relative to claims 3-10. If the Willman fiber web "absorbs" the adhesive/tacky material from the outside in, it is impossible for any of the features of claims 3-10 to be met. Instead, the outer surfaces of the Willman web will always be fully saturated with the adhesive/tacky material at the outer surfaces. Subsequent progressive "absorption" of additional adhesive to an interior of the Willman web can only, at best, produce uniform absorption or saturation across the web's thickness (or at individual fibers), in direct contrast to the features of claims 3-10. Thus, by the Examiner's own analogy, claim 1, as well as all claims depending therefrom, are allowable.

III. REJECTIONS BASED ON WILLMAN AND TRUONG IMPROPERLY FAIL TO CONSIDER THE TEACHINGS OF THE REFERENCES AS A WHOLE

The cleaning wipe of claim 25 includes a tacky material impregnated into a fiber web at a level of greater than 10 g/m^2 and along the working surfaces, with the working surfaces of the cleaning wipe exhibiting a Drag Value of not more than 5 pounds. In rejecting claim 25, the Examiner's Answer asserts the combination of Reiterer in view of Willman and Truong and Tanaka. In this regard, the Examiner's Answer admits that Reiterer does not teach the claimed tacky material impregnation level, having tacky material present at the working surface, nor the Drag Value. With respect to the presence of tacky material at the working surface, Willman is referenced. That is to say, claim 25, as well as claims depending therefrom (such as claims 32-34), require the features of Willman. Willman, in turn, requires a polymeric/tacky material of no greater than 10.0 g/m^2 . According to Willman, the amount of polymeric/tacky material impregnated onto the cleaning is an important consideration. *Willman at para. 165*. Effectively, Willman does preclude adhesive levels above 10 g/m^2 (in contrast to the assertion in the Examiner's Answer). This direct teaching away from the invention of claim 25 must be considered. *MPEP §2141.02 VI*. For at least this reason, a *prima facie* case of obviousness has not been made.

In addition, the Examiner's Answer relies upon Truong as "teaching" the Drag Value of claim 25. As set forth in Appellant's Appeal Brief, while the drag values of Truong may be of general interest, the structure of Truong is decidedly different from that of claim 25 and of those of Reiterer and Willman. More particularly, Truong does not employ a tacky material additive. Undoubtedly, if the tacky material were present (as with Reiterer and Willman), the amount of drag will increase. Thus, any drag values listed in Truong have no bearing on a tacky material-type cleaning wipe. In other words, while Truong may implicitly advise one of skill as to available drag values with non-tacky material articles, Truong does not inform one of skill as to how those values could be achieved in the presence of a tacky material. It is not enough to arbitrarily assert that Reiterer/Willman "could" be modified to provide a lower drag value without also at least hinting at how the lower drag value could be achieved. Upon viewing

Truong, the only teaching of how to achieve the desired, lower drag value is to completely eliminate the tacky material. Clearly, this modification does not satisfy all limitations of claim 25. Conversely, one of skill attempting to modify the tacky material cleaning wipe as Reiterer and Willman would not understand how the wipe could be modified to meet the drag values of Truong while still having tacky material provided with the cleaning wipe. In short, none of the cited references provide an enabling disclosure sufficient to modify Reiterer/Willman with a reasonable expectation of success in producing the invention of claim 25. *MPEP* §§2121; 2133.03. Thus, claim 25 is allowable over the cited art.

CONCLUSION

Any inquiry regarding this Reply Brief should be directed to Eloise Maki at Telephone No. (651) 737-8459, Facsimile No. (651) 736-3833. In addition, all correspondence should continue to be directed to the following address:

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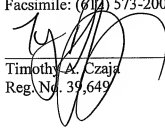
Respectfully submitted,

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